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Rural Lines

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REA 10th TELEPHONE ANNIVERSARY ISSUE



A Message from the

ADMINISTRATOR

Many of us are so familiar with good dial telephones at arm's reach, that it is hard to imagine ourselves without them. Yet we know that millions of Americans are without this modern convenience. And other millions would like to have better service than what they are getting. Some of these people live in the towns; more of them are in our rural areas, where need for adequate communications is even greater.

We came out of World War II with great advances in the science of telecommunications, but down on the farm telephone service was poor and getting worse. There were actually fewer farms with telephones in the years between 1940 and 1950 than back in 1920-1930. This was why Congress on October 28, 1949, authorized REA to make loans for rural telephone service.

Now, 10 years later, we can take stock of what has been accomplished. More than 60 percent of our farms have telephones in 1959, in contrast to 38.2 percent in 1950. This is the largest gain in farm telephones recorded in any decade.

It shows what the various segments of the telephone industry can do when the need has been clearly demonstrated. The October 28 observance of the 10th anniversary of REA's telephone loan program is really a tribute to everybody associated with the telephone industry in recognition of their part in expanding and improving service throughout rural America.

Rural Lines

David G. Hain
Administrator.

John H. Howard, editor. Editor of this issue, Donald H. Cooper. Contributors: Frank S. Jolley, Jr., Bernard Krug, Louisan Mamer and Everett C. Weitzell.

Cover Page: Housewives, teenagers, farmers—everybody uses telephones. The success of REA's telephone program at the 10-year mark is measured in service to people.

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TODAY'S INDEPENDENT TELEPHONE COMPANY

1908 started his own independent telephone company. The magneto system he operated was primitive by present standards, and the way he ran the business was simple—if he had \$100 left over after paying the bills, he took it home.”

Mr. Maguire can be pleasantly nostalgic about the “old days,” but he is firmly convinced that there is no place any longer for the one-man, part-time, magneto switchboard. “It is going to



J. P. Maguire and W. Gilman Snyder use a plane to cover operations of four widely separated telephone systems.

Bakersfield, Calif., is the headquarters of a man who has developed some pretty good ideas about how to operate an independent telephone company in the face of today's rising costs and keen competition. J. P. Maguire* is the man, and he has plenty of experience to support his views.

“My father was a pioneer in the old school of telephony,” Mr. Maguire explains in relating the background for his present-day business policies. “He worked for Bell, and then in

change,” he says, “like the butcher shop and the corner grocery.” He hammers the point home by citing the case of a fine old pioneer telephone owner and operator who recently sold his system to one of Mr. Maguire's companies: “He worked 10 hours a day for 46 years. I think his earnings came to less than 50 cents an hour.”

Two causes for the great change in telephony between the 1920's and today are seen by Mr. Maguire: “Advancement in the art of communications and increased labor costs.” He

* J. P. Maguire, manager of the Central California Telephone Company, Bakersfield, Calif., has been invited to participate in REA's ceremony marking the 10th anniversary of the rural telephone program.

thinks the solution is fairly obvious in the trend of very small telephone exchanges that are going out of business. "There are going to be fewer systems but they will be stronger, with enough subscribers to make them efficient business enterprises," he predicts. As for size, Mr. Maguire once set himself a goal of 20,000 stations but is already beyond that.

To maintain the independent wing of the telephone industry, Mr. Maguire sees two needs: (1) better use of special technical abilities, and (2) adequate financing. What he is doing to satisfy the first of these two needs in the four operating companies with which he is associated poses an exciting challenge to small companies and cooperatives everywhere.

Mr. Maguire pooled his extensive background in telephone management, accounting, financing, and staff organization, with the ample engineering and operating experience of W. Gilman Snyder, president of the Western Telephone Company, which operates out of Weaverville, Calif. The two men created a service company known as the Central Western Company to furnish at cost the specialized requirements which the four operating telephone companies could not afford on an individual basis. The joint services include engineering, construction supervision, purchasing, maintenance, payroll, billing and accounting, and legal assistance.

The vice president of the service company, Mr. Snyder, says, "We know we have a high quality of technical specialists through this arrangement that we just couldn't afford any other way. In addition to two top-notch central office engineers and two fine outside plant engineers, we have on our staff an experienced project engineer who does the scheduling, materials procurement, and general

coordination of construction for all four operating companies. Two of the engineers happen to be on the payroll of one of the telephone companies way up in the northern end of the state, because of the distance involved and because that's where a lot of the work is right now.

"We have a cost allocation system for distributing the salaries and wages of employees who serve more than one company," Mr. Snyder explained that all work performed is recorded in units of time on a card which is designed to permit easy assignment of the cost of the service to the company which receives the service. This kind of trading back and forth makes good records essential. Carefully prepared organization charts and job descriptions keep everyone in the five companies aware of proper responsibility and authority for each phase of the businesses.

Both men emphasize that adequate records are much more important now than in the old days for many reasons: rate cases, taxes, toll settlements. "My dad kept his figuring on the backs of envelopes," says Mr. Maguire, who is president of the service company, "but good record-keeping is the very backbone of the business we have today. Times have changed, and the independent telephone businesses have to change, too, or they will no longer exist as independents.

"It is important," he went on, "that each operating company retain its identity and control over its own policies. In the arrangement we have, the four operating companies have separate policies that differ in some respects. The service company carries out those policies in the designated fields."

Both men think joint contracts or pooled services could be extended to additional fields such as warehousing

and advertising. They already have a uniform inventory system for all their companies. They point out savings in having a single CPA audit contract, in which one firm comes to one office instead of to four. Bonding and insurance coverage is obviously cheaper when risks are pooled. More experienced and specialized legal talent can be engaged through a joint contract. Negotiating a directory contract is easier done for several operating systems than for one.

"We are going to continue exploring the advantages of joint services," Mr. Maguire emphasized, "not only because it helps us as businessmen, but because we think it is important to demonstrate to other independents that they can help themselves and give better telephone service to subscribers by working together."

Turning to the question of financing, Mr. Maguire is equally enthusiastic and firm in his convictions. "The kind and amounts of loan capital that we need just aren't available from normal credit sources.

"The problem is this," he explains. "The average small telephone company doesn't have sufficient equity to meet conventional credit standards. Now REA looks at the telephone service needed in the area, decides how much it will cost for a plant to do the job, and lends that amount of money if it thinks the whole proposition is feasible on a long-term basis.

"Financing of this kind puts a system in a good earning position, because a really complete job can be done. The more subscribers it has, the more valuable the service is to each subscriber. This helps us get adequate rates. With the assistance of



the REA program, we have proven the point that telephone companies can afford to serve the marginal areas. A lot of people in our territory would never have had service without the REA money."

Looking into the future, Mr. Maguire observes that "Population growth makes it important for us to know that we will have large sums of loan capital available for continued expansion. People are moving into rural areas—and no matter how you look at it, most of the small independent systems are serving rural areas, whether all the people there are farmers or not. I think the job of providing modern service through REA loans is outstanding up to this point, but it is not finished."

Mr. Maguire is apt to end any discussion on telephone service by stating his conviction that the independent telephone companies make up a basic part of the foundations of American free enterprise. His views spring not only from his associations with operating companies and his service organization but from 6 years on the board of directors of the California Independent Telephone Association and a year as president of that group. He is a member of the REA telephone Advisory Committee.

TEN YEARS LATER



Jesse S. Tuttle, president of the Emery County Farmers Union Telephone Association, looked back 10 years and said:

"The people around this part of Utah wanted good telephones all right, but they thought a dial system clear out of this world." He grinned, and added, "There were some who said we didn't know enough to operate it."

Before Congress authorized REA to make telephone loans, there were many areas like Emery county in central Utah. The county seat town of Castle Dale had a run-down magneto system. In Orangeville there were 15 magneto stations served out of Castle Dale. The neighboring communities of Cleveland and Elmo had no telephones at all.

"First of all, we went up to Salt Lake City and tried to get service," Mr. Tuttle explained. "We thought we had a pretty fine farming area down here in the valley, but the man we talked to said they had 76 communities ahead of ours and that the country down around Orangeville looked pretty sparse."

Manager Keith N. Ware pointed out that this was 10 years ago. "Today," he said, "we have 775 subscrib-

ers and this telephone co-op is a sound business operation. A lot has happened in these 10 years."

Indeed, a lot has happened! And because this was the very first cooperative to get an REA telephone loan, on April 19, 1950, it is interesting to see how the rural people of Emery county built the telephone system they own today.

President Tuttle was one of the pioneers for adequate telephone service in the valley, but he is quick to point out that there were others who provided leadership and hard work to get what they wanted.

"We had to do a lot of footwork by ourselves at the beginning," relates Mr. Tuttle. "Some of us put up \$100 each as equity and were negotiating with the Farmers Union for a loan to get telephones—this was in 1948 and '49 before REA got into the picture. Part of the push for the rural telephone act came from what we were doing."

A mutual telephone system had been started in 1902, in Castle Dale. With the passage of years the plant became obsolete and could not provide service at all for additional people in nearby communities. Inter-

est in the mutual had faded away long ago and the ownership was obscure.

"The man who ran the system could not make a living from it and just carried it as a sideline," Mr. Tuttle reminisced. "We felt there was no real service and no serious attempt to improve it. He wasn't too happy about our campaign to get a new telephone system." When the new co-op bought out the old system, its leaders had trouble finding the stockholders but were finally able to arrange a satisfactory settlement.

The organizing campaign was much like that which followed in other parts of the country. Local leaders sponsored a series of meetings and elected a chairman in each town who served as a director on the co-op's first board. Progress was slow at the start.

Mr. Tuttle tells it this way: "We just went from door to door, explaining to each family what we had to do to get telephone service. We first asked \$10 equity, and then when REA told us we had to have \$50 per subscriber we had to go back and do it all over again.

"At the start we encountered quite a bit of opposition from people who simply didn't think we could do the job. I guess we never would have succeeded if it hadn't been for some of the people from Washington who

were very helpful. It was all new to us, and even the engineer and contractor we got did not have much experience building a telephone system that would conform to REA standards. It took a lot of patience all the way around. I remember we used to hold board meetings sometimes twice a week, and they usually lasted until 2 or 3 in the morning."

What is it like now? Well, for one thing, the board meets once a month, and the president says, "We get through in a couple of hours.

"The telephone association is a genuine cooperative. We have real successful annual meetings. About 150 members were at the last meeting to hear full reports on the business. We had a good program and there was a lot of interest in the election."

Dennis Killian was the association's first president. Mr. Tuttle is the second man to be president. Other original directors who are still on the board after 10 years are Duane Jensen, Merrill Alred, and Merrill Day.

Now, what about the telephone business 10 years later? Manager Ware is enthusiastic. "We never run into any opposition at all now," he says. "People are convinced we are in business to stay."

The system is about 85 miles long, running north and south in the irri-

Editor
Ashby:
"The telephone and the newspaper are both in the service of the community."



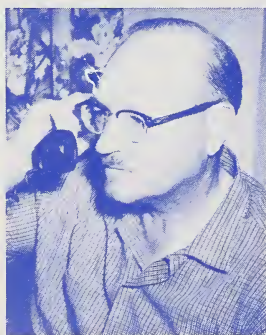


Manager Ware: "A lot has happened in 10 years."

gated valleys along the eastern slope of the Wasatch Mountains. Here the farmers raise hay and grain—wheat, oats, barley — and some corn for silage. Cattle and sheep raising are important, and there is some dairying. At the edge of the mountains are four coal mines which depend upon good telephone service to carry on their business.

"This is real rural telephone service," says Manager Ware. "Only 7 percent of the stations are business phones." Recently the co-op has been installing more extensions, almost all of them colored telephones, and almost all for women. Collections are good. "People around here have lived in the county all their lives. They know one another," the manager says.

President Tuttle: "It took a lot of patience all the way around."



The co-op has a new headquarters building built with its own funds. "Other than that, we just about break even," according to Mr. Ware.

There are four exchanges, at Cleveland, Castle Dale, Ferron, and Emery, with the main offices at Orangeville. Price, to the north on Route 50 is the toll center. At present toll calls represent only about 20 percent of gross revenue.

How are public relations 10 years after the first difficult beginnings? "Come on down and talk with Clarin Ashby, our editor," President Tuttle and Manager Ware both urged.

The editor of the *Emery County Progress* wiped some of the ink from his hands and told how he depends on the co-op's telephone service to help publish his paper and conduct his printing business. "It takes me 96 miles of driving to make the rounds about once a week. It would take me a lot more, except that I can use the telephone to take care of everything in between—advertising and especially news coverage. My telephone saves me time and money. The telephone and the newspaper—I guess they are both in the service of the community."

TEN YEARS OF REA TELEPHONE LOANS

Calendar Year	Loans Approved (Gross)	Funds Advanced ¹	Subscribers To Be Served ¹	New Borrowers Added	Exchanges Cut Over
1950	\$ 19,031,000	\$ 44,653	74,585	61	1
1951	37,082,500	2,572,331	113,387	85	2
1952	55,077,000	15,133,650	103,799	85	23
1953	50,112,000	26,000,889	51,937	9	138
1954	66,346,000	35,402,438	113,091	69	268
1955	66,808,000	46,025,667	154,270	106	285
1956	82,181,000	63,011,184	188,279	94	329
1957	76,445,000	78,374,801	148,474	67	370
1958	102,927,000	88,888,215	187,993	62	435
1959 (to August 15)	61,841,000	58,355,942	114,928	38	211 ²

¹ 1950-1954, net (less rescissions) ; 1955-1959, gross.

² To July 1.



FOR SAVING A TRIP



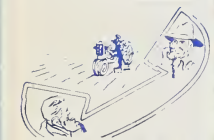
FOR SOCIAL LIFE



FOR FARM & HOME SAFETY



FOR FAMILY TIES



FOR QUICK ANSWERS



FOR FARM PROFITS



FOR EMERGENCIES



FOR BUSINESS



Ten Years of Progress '49 - '59

By Everett C. Weitzell, Deputy Assistant Administrator—Telephone

A new era for rural telephony began with enactment of the REA telephone loan legislation by the Congress, October 28, 1949. Rural America had survived the second World War without having adequate communications, and it was without adequate telephone facilities to meet post-war needs.

Since 1893 rural people had attempted to provide a modicum of rural telephone service through the establishment of small mutual systems, neighborhood companies and farmer-owned lines. Most of them made no provision for the future. Maintenance was haphazard and little attention was given to the provision of depreciation reserves and the various other elements of good management. At this point their plant was obsolete, their financial history was generally not good, and the possibility of attaining adequate capital to rebuild and modernize seemed to be out of the question.

In 1945, American agriculture was about to launch a vast and intensive development involving new ideas and new techniques. The age of self-sufficiency was about to give way to technological methods of large-scale farming and modern farm living. The youth that came out of World War II had grown accustomed to the technology of warfare, the use of adequate communications in the larger cities and military zones, and they were not to be satisfied with the inadequacies of the past.

As the post-war period developed, the demand for expansion and improvement of rural telephone service became more intensive. Six thousand independent companies and thousands of farmer lines seemed helpless, owing to their inability to obtain the necessary funds for financing additions and rehabilitation. Letters came from rural people everywhere indicating their impatience and their dissatisfaction with the lack of progress in providing rural telephone service. The task force committee of the United States Independent Telephone

Rural Lines

Association reported that "the problem of financing a small telephone company to provide funds necessary for plant replacement and improved equipment is one of major importance in the independent industry." Mr. E. C. Blowmeyer, writing for the Independent Telephone Institute, said that "The vital question is that of how the small independent companies are going to get the money with which to do their part of the job if . . . legislation is not enacted."

October 28, 1949

It was on the basis of these widespread demands that Congress enacted the rural telephone loan program. But this action came not without opposition. The apprehensions of many interests led them to feel that a Government loan program for rural telephony would be a step toward the imposition of Government controls and the weakening of private enterprise. These apprehensions led the Congress to grant a preference to existing telephone systems in the making of loans under the new Act, and to deny loans to bodies such as municipalities and public utility districts. This preference was strengthened by a further requirement that applications from such existing systems be considered and acted upon for a period of one year before applications from others for serving the same or similar areas were acted upon.

With these limitations, it was "declared to be the policy of the Congress that adequate telephone service be made generally available in rural areas through the improvement and expansion of existing telephone facilities and the construction and operation of such additional facilities as are required to assure the availability of adequate telephone service to the

widest practicable number of rural users of such service."

The enactment of the rural telephone loan program meant that a sizeable task of learning, policy formulation, and procedural development had to be undertaken by REA. The nature of the rural telephone industry as it then existed presented some difficult problems that had to be solved before sound financing was possible. The consolidation and merger of many small companies and farmer lines was obviously necessary as a requisite to the establishment of efficient operating units. Methods for making subscriber surveys and estimating the market for telephone service had to be developed. The establishment of acceptable construction and equipment standards as a basis for long-term financing was a must. Procedures for determining that each loan would serve the widest practicable number of rural users, for developing feasibility standards as a basis for evaluating each loan, and for assuring adequate service at reasonable rates were requisite to the new program.

The REA Approach

The REA approach to loan planning is distinctive in several respects. The concept of planning complete systems is paramount. Financing is provided on the basis of need for completing the facilities that are required to serve a particular area. This is in keeping with the requirement that loans are to be made so as to serve the widest practicable number of rural people.

During the early years of the program, it was felt that borrowers should provide equity capital somewhat in keeping with conventional credit standards. Accordingly commercial companies were required to provide from 20 to 30 percent equity while co-

operatives and other non-profit companies were required to supplement loans with \$50 per subscriber for new subscribers and \$25 for subscribers on existing facilities. It was quickly obvious that many commercial companies could not meet these equity standards, and the requirement was reduced to 10 percent. Even this seemed to be a substantial deterrent to the expeditious expansion and improvement of rural telephony. In many cases, the cost of obtaining equity seemed to be more than it was worth. This was particularly true where 2 percent loans were to be supplemented by preferred stock drawing 5 to 6 percent. In 1956, this equity requirement was abolished, except as it might apply to special cases.

Acquisitions

An important aspect of the REA approach to loan planning is that of acquisitions and refinancing. The competition between borrowers and other companies for acquiring available property has made it necessary for REA to adopt a careful and conservative policy with respect to the making of loans for these purposes. The Act provides that not more than 40 percent of any particular loan may be for refinancing. This means that any company borrowing money for refinancing must also have a substantial amount of development and expansion as the principal purpose of a loan. Likewise, all acquisitions must be justified in terms of the amount of rural expansion and development which will be facilitated thereby. Loan funds for acquisitions are limited to REA appraised value with borrowers being required to contribute as equity capital any excess in acquisition cost over REA appraisal.

Another limitation to REA loans is the rural-urban relationship. The

principal purpose of any loan must be to serve rural areas. This does not prohibit the provision of service to urban areas (over 1500 population) if the money required for improving and expanding service to the surrounding rural area is substantially greater than that required for serving the urban area.

A distinctive element of the REA pattern concerns the method of advancing loan funds. First, the corporate structures of the borrower must be sound, property titles must be cleared, REA standards must be met and borrowers must meet the requirement of their respective regulatory bodies. These and any other special requirements must be met before the funds are advanced. Even then, funds are made available only as borrowers need them. They are advanced in response to supported requisitions submitted in accordance or in conformity with the loan budget which was initially agreed to. As projects are completed and contracts closed out, REA field personnel audit the expenditure of loan funds to determine that misuse and irregularities have not occurred. This is undoubtedly one of the most important elements of our security program.

As initial construction is completed, borrowers are required to provide annual audits by certified public accountants indicating the condition of their operations. This is in keeping with normal business practice.

Technical Assistance

The REA program is not merely a credit program. It is a program of assistance, guidance and development. Many of its borrowers are new corporations with little or no experience in the handling of large amounts of

money and in the administration of a modern program of rural telephony. Therefore, the job is one of building enterprises while building telephone systems. What is more, the job of building enterprises goes on long after the completion of the initial telephone plant.

Concurrently with loan planning and system construction, REA field personnel assist borrowers in getting their house in order. Recommended accounting, internal controls and day to day management practices are brought to the attention of borrower personnel. Competitive bidding in the purchase of central office equipment and the importance of well planned contracts as a basis for all types of construction are emphasized.

In order to carry out the requirement of serving the widest practicable number of rural people, it is necessary to keep costs down. Accordingly, REA urges its borrowers to retain existing plant that is usable in the new system. In addition, borrowers are urged to accept standards which will minimize maintenance costs over the loan period.

New Ideas

REA personnel and funds are devoted to the development of new ideas and new equipment which will serve rural people in a more effective manner. Relationships are developed with the manufacturing industry for the purpose of producing more appropriate equipment and supplies for meeting rural conditions. Only that material and equipment which is found to be of acceptable quality is financed with REA funds. New developments of tested value are continually brought to the attention of borrowers and included in REA recommendations.



In addition to the assistance provided by REA field personnel, borrowers are assisted in conducting workshops for the purpose of developing a more thorough knowledge of modern telephony and sound business practices. REA manuals on operations, accounting, and engineering are available to the small companies and cooperatives as valuable tools in conducting workshops and as reference material.

The scarcity of qualified people to staff the independent telephone industry makes it desirable to continue workshops and training schools in all phases of small company operation. Gradually borrowers are learning to use the various manuals and guides that have been prepared and placed in their hands. The need for developing qualified personnel and for improving the management of small enterprises cannot be overemphasized. REA borrowers must provide rural telephone service second to none. To do this they must manage, operate and maintain their systems in keeping with the highest standards.



"Emergency calls for vital medical service help protect the Nation's health. Phone calls are important for 'get well' medical advice."



"A good telephone, working properly, means the difference between safety and disaster."



"I can't run my store without a telephone these days. I need it for taking orders."

RURAL AMERICA CELEBRATES TEN



"There is nothing like a telephone call to bring the whole family together."



"Is that you in there, daddy? Mommy and I are waiting for you to come home."



"The success of our cooperative can be attributed to three things: First, the vital need for telephone service; second, cooperation from REA and all segments of the telephone industry; and third, consumer satisfaction."
—Eugene R. Britt, Manager, Pineland Telephone Cooperative, Metter, Ga.



"Shopping by telephone makes the three-meals-a-day problem almost fun."



"Telephones? use 'em for getting odd jobs, doing homework, calling 'chicks'."



"My business has picked up considerably now that more farmers have phones."

YEARS OF TELEPHONE PROGRESS



"I used to waste time and money, going to town for replacement parts."



"A girl's whole social standing depends on telephones. We think they're tops."

"The whole country is built on good communications . . . this is just as true in the rural areas as in the cities. No part of the country can make progress without modern telephones."

—J. P. Maguire, Manager, Central California Telephone Company, Bakersfield, Calif.





TODAY'S TELEPHONES ARE BETTER



By F. S. Jolley, Jr., Telephone Engineering and Operations Division, REA

When the REA telephone program was initiated by the Congress in 1949, a first concern was how to cope with the vast complex of technical development that is the heart of the communications industry. If rural areas were to be provided quality telephone service comparable to that in the cities and their suburbs, there would have to be an orderly sorting out and use of existing technology together with development of new concepts of telephone design, engineering, manufacturing, construction, and testing.

Telephone engineers brought into the staff of REA were asked to adapt their skills and specialized knowledge to the particular problems encountered by small systems in providing modern dial service in thin rural areas.

As a primary step a standards section was established, to be responsible for determining that all products and materials used on REA borrowers' telephone systems met acceptable specifications. Where industry specifications did not exist, REA staff engi-

neers established them, after consultations and testing. Borrowers have cooperated in field tests of products and materials. The benefits of this program are felt to extend beyond the use by REA-financed systems alone.

Construction assembly units were designed for all telephone plant items. This has permitted contractors to bid competitively on the construction of borrowers' telephone plant. Perfection of the specification and construction assembly unit method has been a major contribution to REA telephone borrowers and the industry in general.

A critical shortage of qualified engineering firms interested in performing telephone engineering services for REA telephone borrowers existed during the program's first several years. REA has held engineering symposiums to interest engineering firms in providing services to borrowers and in assisting in the training of engineering personnel. As a result of this effort approximately 100 engineering firms have entered the rural telephone field and over the past 10

years have been responsible for the engineering of over 200,000 miles of telephone lines on REA borrowers' systems. Many of the ideas for improvements and new developments have come from this group based on their experience in the field.

A Telephone Engineering and Construction Manual was introduced by REA in 1951. This manual embraces technical information on engineering and construction practices covering substantially every phase of telephony on REA borrowers' systems. This manual is now considered by many to be the only complete publication of its type offering technical information on general telephony to the independent telephone industry. It is used by all REA borrowers, their engineers and contractors, by various Government agencies, and by foreign countries.

REA telephone engineers are constantly searching for methods, products and materials to improve telephone service, lower the plant investment, and reduce annual carrying charges. This involves the evaluation of new ideas that are generated within the telephone industry and requires REA's support and assistance in developing those ideas, so that rural subscribers may benefit.

REA telephone engineers developed standard technical specifications for automatic dial switching equipment which enables all manufacturers of such central office equipment to bid on a truly competitive basis. This standardization provides REA borrowers with central office equipment at the lowest possible cost.

Among the technical contributions brought about by REA telephone engineers were new design and manufacturing techniques for certain functional relays in dial central offices. These eliminated a cross-talk problem of long standing. Another boost to

better telephony was the assistance REA engineers gave the manufacturers of telephone instruments. New and improved sets available today provide quality transmission of voice frequencies over greater distances.

As a method of cost reduction in outside plant facilities, the concept of long span construction was developed by REA in cooperation with industry engineers. Through the use of high-strength conductors, rural telephone systems are being built today with less than half the poles utilized several decades ago. This substantially lowers construction costs.

Working with industry engineers and manufacturers, REA played an important part in the development of modern plastic insulated cable for rural use. These cables have improved dielectric strength, better transmission capability and long life expectancy. Color coding of the conductor pairs has been standardized and accepted by most of the telephone industry. Improved cable terminals, splicing techniques and various cable accessories have been developed to achieve improved operating quality and lower maintenance costs.

Plastic insulated, multi-paired distribution wire, first developed for temporary use, is now accepted as a permanent plant item with a life expectancy in excess of 20 years.

Again, REA, in cooperation with engineers, manufacturers and contractors, developed an entirely new concept in telephone plant through the use of newly developed plastic cable and wire suitable for direct burial use. Plastic-insulated, plastic-jacketed wire and cable are now in general use for buried plant construction. A complete new line of terminals, pedestals, load coil cases and other accessories now permit plowing in of the wire and cable with entire systems being placed

underground away from most destructive elements and at costs comparable with aerial plant construction in many instances. Present data indicates this buried plant concept will reduce service outages by a substantial degree.

At the outset of the REA telephone program there was substantially no development in the field of subscriber carrier equipment. REA worked closely with interested manufacturers in this field to develop satisfactory subscriber carrier equipment. Today there are five major suppliers in this field furnishing a wide range of equipment used both in initial system design and for reinforcements to meet increasing service demands.

Advancement in the field of subscriber carrier necessitated the development of new and improved transposition systems. This development was concurrently carried on by REA engineers to permit the full exploitation of this development and enable use of the maximum number of carrier channels over a wire line route. REA engineers have developed four new transposition systems to meet these conditions, and these are in general use throughout the industry.

In addition to REA's regular staff of engineers, much credit for the accomplishments must be given to the technical consultants employed by REA. These men, retired from many years' service in the telephone industry, all eminent in their fields, have provided invaluable assistance and guidance to REA in developing standards and criteria in outside plant, traffic, transmission, protection and central office equipment.

Many other new techniques have been developed with the assistance of REA's engineering personnel during these 10 years. These electronic items are of very little benefit without the knowledge to properly install and

maintain them. REA field engineers are available to every borrower's system to offer sound engineering and construction advice and assistance.

Although tremendous strides forward have been made and REA telephone engineers have closely associated themselves with the industry and its progress, these same engineers give primary interest to the future.

The telephone industry is today hard at work developing and perfecting improved electronic equipment of all types and descriptions along with the associated wire and cables necessary to meet tomorrow's demands for more and better circuitry for television, radio, facsimile teletype and data processing. All these items are the direct result of industry research and will greatly enhance the communications network of America.

Developments will place increasing demands on communications networks to move business data faster and farther than ever. We can look to pushbutton dial telephones, improved private branch exchange equipment, improved signalling devices, jack-in type units for inside and outside plant items, better protection from lightning, use of improved transistors in carrier, repeater and central office equipment. Mobile dial radio-telephone service, originally developed by manufacturers under contract with REA, will come more into use and microwave installations will increase appreciably. Engineering and design will extend spans of wire and cable to greater lengths.

Making certain that what will be designed and manufactured for industry use, fits in logically and economically in the telephone systems of REA borrowers continues to be a challenge and primary responsibility of our engineering staff.



SERVING A TYPICAL *Community*

If there is such a thing as a typical telephone cooperative serving a typical rural community, one of the likeliest candidates for that title would be the Pineland Telephone Cooperative, at Metter, Ga.

Pineland, nestled in the rich agricultural land of Candler County, 60 miles west of Savannah, provides modern dial service to more than 2,900 subscribers on 9 exchanges. The town of Metter, a bustling community with a population of about 2,500, is the focal point of the telephone service that fans out over an 8-county radius.

The Pineland cooperative came into existence in 1951 when its first REA loan was approved financing the consolidation of 9 small magneto companies in the area. First cutover to dial operation was in July 1953.

"We had a big turnout that day" reminisces Co-op Manager Eugene R. Britt,* "and we've had big audiences for most of our February annual meetings since then. I guess the biggest, though, was the crowd of 1,000 members at the 1954 meeting when we decided to build the headquarters at Metter."

* Eugene R. Britt, manager of Pineland Telephone Cooperative, Metter, Ga., has been invited to participate in REA's ceremony marking the 10th anniversary of the rural telephone program.

The building, an attractive one-story brick structure, is somewhat of a headquarters bargain. Including the garage, it covers 3,200 square feet and cost the cooperative only \$25,000.

A large variety of people and enterprises make efficient use of the up-to-date telephone service the cooperative provides. Thirty percent of the subscribers are farmers, with tobacco, cotton, livestock and grain the principal money crops. In fact, up until 3 or 4 years ago Metter was almost totally dependent on agriculture.

But the town has branched out now into more diverse commercial activities. Besides a large tobacco warehouse, it boasts a shirt factory, two banks, a shoe factory, four modern schools, and a grain elevator. Nearby is one of the largest peach farms under one management in the country — 2,500 acres.

The tobacco warehouse covers about 110,000 square feet of space, and holds tobacco auctions every day for 4 weeks, beginning in late July. Warehouse owner James Hensley runs three warehouses altogether. He and A. L. Garner, fast-talking auctioneer,



Preparing for a fast-paced tobacco auction demands dependable telephone service.

both say they would be "lost without good telephone service. It means money in the bank for us."

The telephone is a mighty important object in the newspaper plant of R. G. Daniell, publisher of "The Metter Weekly Advertiser—A Candler County Institution Since 1912." He uses it in the front office and in the printing shop in the rear. Back there, when the weekly deadline draws near, Managing Editor Dan Hodges sits at the linotype with the telephone right beside him. He takes the news over the phone and sets it into type immediately, a time-saving procedure

that eliminates the chore of writing everything down first.

Metter's second bank, the Pineland Bank of Metter, opened for business last August in its new building on North Broad Street. It is proud of its modern equipment and facilities, especially its telephone service and the town's first drive-in window and the first night depository.

In nearby Twin City, the cooperative provides telephone service for a spotless little factory that can turn out up to 36,000 dress shirts a week. Its payroll fluctuates between 215 and 240 workers all year round. A shoe factory, moved from New England to Metter last year, produces 3,600 finished pairs of shoes daily. A grain elevator company, on the edge of Metter, stores corn, oats, wheat and soy beans, with a capacity of 200,000 bushels. All three of these thriving

Mrs. J. H. Quarles, shirt factory supervisor, uses the telephone in her busy workday.





As national vice president of Future Homemakers of America, Jan Miles keeps the telephone busy.

concerns put good telephone service high on the list of necessities.

A telephone is a necessity, too, to the teen-age population, some 400 of whom attend the Metter High School. One of the typical "teens" in town is pretty, 16-year-old Jan Miles, newly elected national vice-president of the Future Homemakers of America, in charge of public relations. State president of F.H.A. last year, Jan is now launching a nationwide survey on how F.H.A. influences its members' choice of career, and how membership in that organization has contributed to their happiness.

Manager Britt and Board President W. O. Coleman have worked hard to make the cooperative a success. It now employs a staff of 13 and provides an annual payroll of nearly \$45,000 to the business economy of the community.

"We enjoy good relations with everyone," Britt says, "by trying to do our bit in boosting the town of Metter."

Britt's personal "bit" is worthy of mention. He finds time (or makes time) to do the following extra-curricular jobs: president of the Metter Chamber of Commerce, vice president

of Kiwanis, general Sunday School superintendent, and secretary-treasurer of the Georgia Telephone Association. This is his third year on the board of the statewide telephone group. He organized and edits its lively monthly news bulletin.

Britt, a native of Alabama, brought a well-founded knowledge of telephone matters to his job, having been on the REA field telephone staff before settling down at Metter.

He is a firm believer in the policy of area coverage. He will glance up at his wall map, with the telephone lines spread over it like a gigantic net of community cooperation, and say:

"By sticking strictly to the idea of area coverage, we have built a lot of lines to serve a lot of people who *never* would have service otherwise."



Managing Editor Dan Hodges takes late news by telephone for local weekly, sets type immediately.



Listening in on the Party Line

Tennessee—The Halls Telephone Company, which serves a rural area north of Knoxville, fills its monthly newsletter to subscribers with tidbits of news and announcements of community events in the local service area. Herman R. McDonald, Jr., president and manager, finds that people like to read about Scout Troop 251, Career Night at the high school, construction progress on highway 33, and the Halls Community Fair, along with occasional paragraphs about telephone service.

Washington—G. J. Stover, president and manager, Skagit Valley Telephone Company, organized and then became a director of the Skagit Valley Historical Society as a community participation sideline. Headquarters were in the telephone office in Mt. Vernon until this fall when exhibits were moved into the new junior college just completed at the edge of town. Along with the installation of the historical society went 12 pay stations and a 3-trunk PBX for the school.

Oklahoma — The Pioneer Telephone Cooperative, at Kingfisher, is pushing the use of telephone credit cards which permit its members "to make a long distance telephone call

from practically any point in the United States without having to fumble for pay station change, seek identification or wait for a collect call to be OK'd." Credit cards lead to more long distance calls and more revenue for the home system which shares toll receipts.

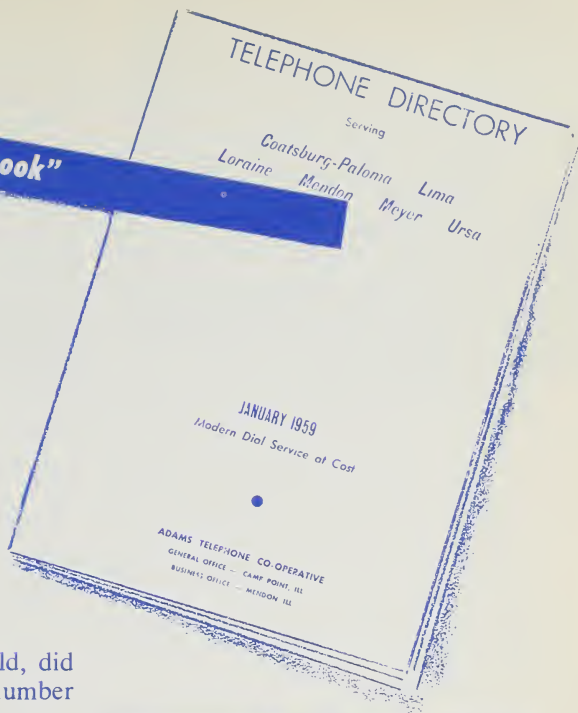
North Carolina — All employees of Thermal Belt Telephone Company, Tryon, completed 10 hours of class work in the standard first aid course offered by the Red Cross this year, and then went ahead on the advanced course which takes 16 more hours. Manager B. H. Douglas thinks this training helps the company, the individual employee and the entire community in time of emergency.

West Virginia — This State's 500,000th telephone was installed recently in the service area of the Home Telephone Company, at New Haven. President Donald F. Roush joined with public officials and representatives of the telephone industry to present a blue telephone with a special inscription to the lucky subscribers, Mr. and Mrs. Joseph Paugh. To mark the occasion, a specially inscribed telephone was also presented to the Governor of West Virginia "as a symbol of progress and continued growth."

Wisconsin—REA's largest initial loan to a new telephone borrower went to the North-West Telephone Company, at Tomah, on August 25. More than 15,000 existing subscribers will get improved service and about 5,500 new subscribers will have telephones for the first time, as a result of this \$7,500,000 loan. Fifteen new dial central offices will be built to provide modern dial service in parts of 22 counties of the State.

"My Name's in the Book"

TEENAGE TELEPHONE DIRECTORY



When you were 14 years old, did you have your name and number in the telephone directory?

The teenagers in Camp Point, Ill., do, and they get "a big charge" out of the idea. They like it very much.

Bound into the middle of the phone-book is a special eight-page pink section, listing the names and home numbers of more than 150 teenagers living in the area served by the Adams Telephone Cooperative. The idea started several months ago as the brainchild of Harold Harkness, general manager.

"We had heard all sorts of stories about teenagers and their use of the telephone," Harkness says. "Some of the stories weren't exactly complimentary. So we decided to do something about it.

"Teenagers need recognition and consideration," he continues. "They can be a powerhouse either *for* or *against* any program."

Harkness knows what he is talking about, from years of experience with



Virginia Mealiff, 15, keeps in touch with friends.



Donna Miller, 16, keeps active in Future Homemakers of America.



La Verne Shaffer, 18, conducts Future Farmers of America business.

young peoples' groups. He has 2 daughters, 21 and 18, and a son, 12. Recently he has been very active in "Teen Town," a three-community teen center with individual projects for each town. Last year, the Camp Point teenagers decided to get themselves a tennis court.

They did all the work themselves, to organize and stage a "mystery package auction" which attracted a large audience of parents and friends. Local merchants donated free gifts. Enough of them were sold for as much as \$20 or \$25 to net the teen center a tidy \$1,300 for its tennis court.

It was right after this successful auction that Harkness began working on his teenage directory idea. His first chore was to get out a questionnaire that had a double-barreled objective: first, to get the names and numbers of the youngsters who wanted to be in the book, and second, to get some information on their telephone techniques and their local buying habits.

To start the ball rolling, he sent a copy of the questionnaire to 1,000 subscribers (about half of the co-op's membership), enclosing an announcement of a prize contest for the teenager suggesting the best name for the special section in the directory.

The response was more than encouraging, with more than 100 an-

swers bouncing back within a few days, and a steady stream of replies trickling in afterwards. The Camp Point Journal and the Mendon Dispatch-Times gave the campaign full coverage in their columns.

The prize was free installation of an extension telephone, in the winner's own room, in his or her choice of colors, with free service for one year. A total of 120 different names was submitted, from which the judges finally picked "Teen Phones." However, another entry, "Teen Phone," was so similar that a second prize of six months' service with a free extension was hastily established before the winners were announced.

In January 1959, the telephone cooperative issued the first directory with the teenage section. The names are arranged alphabetically in the middle section of eight pink pages. At the top and bottom of each page there is space for an advertisement. That space, in the first issue, contains only "house ads" by the cooperative, explaining the advantages of telephone etiquette, how inexpensive telephone extensions are, the method of electing members of the co-op's board of directors, hints for long distance calling, and other fill-in information.

But the next directory, currently under preparation, will have paid ads in most of these spaces instead of



Ray Markword, 15, says everyone likes the directory.



Board President Grimes sees today's teenagers running the Co-op tomorrow.

house ads. That is where the statistics from the questionnaire come in.

Look at this list of 15 questions that the teenagers answered when they submitted their contest entries:

1. Where do you shop for your clothes?
2. Where do you have malts after school hours, and in the evenings?
3. Where do you go to shows?
4. To which radio station do you most frequently listen?
5. Where do you buy records?
6. Where do you go bowling?
7. Where do you roller skate?
8. Where do you buy gifts?
9. What other places do you frequently visit, either on dates or as a group?
10. To what youth organizations do you belong? (Church groups, 4-H and FFA-FHA.)
11. How long do you talk on the telephone on any one call? (Majority said "less than 5 minutes." Others put down "until cut off.")
12. What time of day or night do you use the telephone most? (Over 99 percent said "after 4 p.m.")
13. Would you like to have an extension telephone for your own use?
14. What color telephone is most appealing to you? (Pink first, with blue a close second.)
15. Would you like to know more about how your telephone operates?

Some of the answers were unusual, many were startling, and all were interesting. For example, numbers 13

and 15 received all affirmative answers, without a "nay" in the lot.

Harkness plans to use the questionnaire's commercial data in two ways. "We will approach the merchant whose popularity is indicated by the vote and advise him to place an ad with us, to ensure the continuance of that popularity.

"And we will talk to the merchant whose name is far down on the list, suggesting to him that the best way to get his share of teenage business in town is to advertise in the next teenage directory. Right now, it looks as if it will have close to 300 names."

An informal spot check of teenagers throughout the co-op's area reveals that they like the idea of seeing their names and numbers in a special section of the book. Most of the parents favor the innovation, too.

Virginia Mealiff, 15, daughter of Mr. and Mrs. Harold Mealiff, Mendon, Ill., said: "Now I can call my friends without first having to look up their parents' number."

Her sister, Mary Anne, 17, said: "Our friends are scattered geographically, and a teen directory gives us all the information we need in one book."

The girls' parents are equally enthusiastic: "It gives teenagers a sense of importance to help their own telephone cooperative, and to realize their own responsibility."

Boys favor the directory, too. La Verne Shaffer, 18, of Ursa, Ill., had this to say: "I think all the co-ops should have a teenage directory. It would speed up all the calls." He was state sectional vice-president and district director of the Future Farmers of America and plans to enter the Navy soon. His parents, Mr. and Mrs. Vern Shaffer, echoed their son's feelings.

Donna Miller, 16, Paloma, Ill., stressed the social advantages that a listing in a teenage phone-book gives a girl. "A lot of my friends call me that never called me before. Besides, I use the directory a lot in connection with Future Homemakers of America, and for school activities."

Her mother, Mrs. Donald Miller pointed out that "the responsibility that goes with having their names in the phone-book puts them on the same level as grown-ups."

Ray Markword, 15, of Ursa, spoke for many of his friends at school. "Everybody I know likes the idea and uses the book all the time," he said.

His father, Kenneth Markword, touched on a fundamental issue of telephone manners: "It's easier and better to educate a teenager to use the phone fairly than to order him not to use it at all. Besides, kids who know how to use the phone properly can use it for emergencies."

The teenager telephone book idea has received support from other quarters, too.

Leroy Grimes, president of the co-op's board of directors, says:

"The board is very receptive to the new plan. Teenagers will make more toll calls, and will bring up the subject of adequate telephone service at family get-togethers. It is the youth of this area that will maintain this cooperative some day, and if we can please them today, our purpose will be justified."

Local educators already have made important use of the new teenage directory. They are: Earl Hudson, superintendent of schools; and Maurice A. Cameron, principal of Unity High School, where most of the teenagers listed in the book attend classes.

Cameron's school has more than 300 students enrolled. "I use the directory," he says, "to tell which parent goes with which child, just in case I have to call the parents in for a conference. The book helps our teachers, too. It makes the kids feel grown-up and more a part of the community."

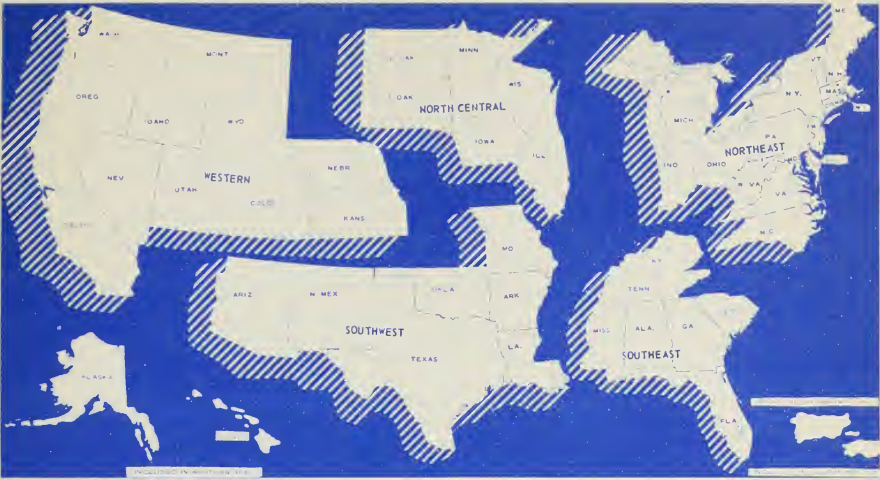
Hudson, with close to 1,200 students to supervise, says that grade school is not too early to begin learning how to use the phone. "Phone service is a novelty in many homes" he says, "because the parents did not have a phone to begin with, and both they and their children have had to start learning about telephones almost at the same time."

At the cooperative's annual meeting in September, part of the program was slated to be directed solely at teenagers. Five prizes were to be drawn especially for them, consisting of installation and one year's service on a color extension phone. In addition, teenage registration at the meeting will provide another source of names and numbers for future directories.

Harkness is justifiably proud of the success that the first teenage telephone directory in the country has enjoyed. He has received inquiries and requests for sample copies from scores of telephone organizations in a widely scattered area.

"Our philosophy," he muses, "is that we are not just operating this system for the present subscribers. The younger generation, bless 'em, will step in sooner than you think."

MEET YOUR AREA TELEPHONE DIRECTOR



REA's telephone staff now has an area-type organization similar to that which the electric staff has used since 1952. The geographic areas are shown in the map above, and the five new area directors are shown in the photographs below. This pattern gives presidents, directors and managers of telephone systems a single point of contact for all of REA's various relationships with borrowers.

For the Western Area Office, William W. Newman, Jr., is director and Harold F. Clark is assistant director.

For the Southwest Area Office, Edward Maddox is director and Richard L. Allen is assistant director.

For the North Central Area Office, Edgar F. Renshaw is director and C. C. Hanks is assistant director.

For the Southeast Area Office, Walter L. Wolff is director and Walter E. Rich is assistant director.

For the Northeast Area Office, Thomas J. McDonough is director



McFARLIN



WEITZELL

and Arthur H. Schartner is assistant director.

The same field personnel will continue to serve telephone borrowers under the new organization.

Assistant Administrator Norman H. McFarlin has Everett C. Weitzell working with him in the new position of Deputy Assistant Administrator, to coordinate and direct the rural telephone program.

All REA staff activities for the program now are in a new Telephone Engineering and Operations Division, headed by Raymond W. Lynn. Assistant chiefs of this division are Hoburg B. Lee and Donnan E. Basler.

NEWMAN

MADDOX

RENSHAW

WOLFF

McDONOUGH



UNITED STATES
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DIVISION OF PUBLIC DOCUMENTS
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PROGRAM



U. S. Marine Corps Band
3-minute Motion Picture
Progress Report—Illustrated
The Telephone Company—Illustrated
The Telephone Cooperative — Illustrated
Address — Administrator David A. Hamil
Telephone Call—Washington, D. C.,
to London, Arkansas
Introductions